This informed consent applies to adult (18 years or older) smokers seen as outpatients at the Vanderbilt Heart and Vascular Institute.

Name of participant:_____ Age: _____

The following is given to you to tell you about this research study. Please read this form with care and ask any questions you may have about this study. Your questions will be answered. You will also be given a copy of this consent form.

You do not have to be in this research study. You may choose not to be in this study and get other treatments without changing your healthcare, services or other rights. You can stop being in this study at any time. If we learn something new that may affect the risks or benefits of this study, you will be told so that you can decide whether or not you still want to be in this study. Your medical record will contain a note saying you are in a research study. Anyone you authorize to receive your medical record will also get this note.

1. What is the purpose of this study?

You are being asked to take part in this research study because you are a current smoker interested in taking medication to help you quit smoking. This study will help the researchers understand more about how to help people quit smoking. Some people break down nicotine in their body more quickly than others and certain medications might be more effective for helping a person quit smoking depending on how fast their body breaks down nicotine. This study is trying to determine if a blood test that measures how a person's body breaks down nicotine can help doctors choose the medication that is most effective in helping that person quit smoking.

2. What will happen and how long will you be in the study?

Taking part in this study is voluntary. If you decide to be in this study, you will be asked to read, sign, and date this informed consent. A copy of this form will be given to you for your records. You will be asked to complete a questionnaire about your opinions on smoking treatment and how providers choose the best medications to help patients quit smoking. Additionally, you will be asked a brief medical assessment to help us understand how you are currently feeling. The questionnaire will take approximately 30 minutes to complete.

You will be assigned to either a guideline-based care group ("Study Group 1") or a personalized care group ("Study Group 2"). If you are in the guideline-based care group, you will receive information regarding smoking medications, and then choose a medication based on that information and your personal preferences. If you are in the personalized care group, you will receive information regarding smoking medications as well as results from a blood test that measures how your body breaks down nicotine. You will then choose a medication based on that information and your personal preferences.

Regardless of which group you are assigned, you will be asked to provide a blood sample that will allow the research team to measure how quickly your body breaks down nicotine. Your body breaks down nicotine in your liver into other substances. This test measures how quickly your body changes nicotine into these substances. The result of this test is called the nicotine metabolite ratio. A person trained in

collecting blood, called a phlebotomist, will draw your blood. The blood draw will take approximately 15 minutes.

Your blood samples and information about you may be made available to others to use for research. To protect your privacy, we will not release your name. You will not receive any benefit as a result of the tests done on your samples. These tests may help us learn more about the causes, risks, treatments, or how to prevent this and other health problems.

Your samples may be used to make new products or tests. These may have value and may be developed and owned by the study staff, Vanderbilt University, and/or others. If this happens, there are no plans to provide money to you.

About one week (but within 1 month) after consenting to the study, the research staff will call you at home to discuss medications to help you quit smoking. If you choose to receive medications, a prescription will be called to an outpatient pharmacy where you may pick it up. You will be asked to take this medication as prescribed. You may be prescribed one or more of the following FDA-approved tobacco cessation medications:

- Nicotine Replacement Therapy (patch)
- Varenicline (also called Chantix)
- Bupropion (also called Wellbutrin or Zyban)

To learn about potential risks and side effects of these medications, please see Section 4 of this document.

During your study participation, you will receive phone calls from the research team approximately 1, 3, and 6 months after your initial phone call. You may be asked about your smoking behaviors and how the medication you are taking makes you feel. These phone calls will last no longer than 30 minutes. Approximately 1 month after the initial phone call (made by clinical staff concerning your medication) you may be asked to attend an in-person follow-up visit at Vanderbilt Medical Center with the research team and provide a blood sample to determine the amount of quit smoking medication in your body and complete an in person questionnaire (rather than by phone). This blood sample may be shipped to other investigators to where the test is performed.

Approximately 6 months after the initial phone, <u>if you have not smoked for 7 or more days</u>, you will be asked to attend an in-person follow-up visit at Vanderbilt Medical Center with the research team. The research team will call you to schedule this visit. At this visit, you will complete a brief questionnaire about your opinions on smoking treatment. This questionnaire will take approximately 30 minutes to complete. Lastly, you will be asked to take an optional breath test that measures the amount of carbon monoxide in your lungs. Completion of this breath test requires you to hold a small device and breathe into a mouthpiece. In total, the follow-up visit will take approximately 45 minutes.

Approximately 6 months after the initial phone call, <u>if you are still smoking</u>, you will be asked to complete a brief questionnaire by phone. The questionnaire will ask about your smoking behaviors and opinions on smoking treatment. This questionnaire will take approximately 30 minutes to complete. Also, you may be offered a second opportunity to receive a prescription for medications to help you quit smoking. If you

wish to have a prescription, it will be called in to an outpatient pharmacy. You will be called by phone in approximately two weeks to see if you have filled the prescription. The cost of this second prescription medication will be your responsibility if you chose to have the prescription filled.

In total, you will be in the study for approximately 6 months.

A member of the research team may be will be able to review your medical records for up to 5 years after this study.

You may decide to stop being a part of this study at any time. This will not affect your treatment, payment, or enrollment in any health plans.

3. Costs to you if you take part in this study:

If you agree to take part in this research study, you and/or your insurance will not have to pay for the tests that are part of the study, such as the blood test, breath test, and saliva test.

You will not have to pay for the cost of medications to quit smoking that are offered at the beginning of the study. However, those participants in Study Group 1 who are still smoking and wish to have a prescription called in at the end of the study, will be responsible of the cost of those medications if they chose to have the prescription filled.

You will also be responsible for paying any costs associated with transportation to Vanderbilt University Medical Center for follow-up.

You have the right to ask what it may cost you to take part in this study. If you would like assistance, financial counseling is available through the Vanderbilt Financial Assistance Program. The study staff can help you contact this program. You have the right to contact your insurance company to discuss the costs of your routine care (non-research) further before choosing to be in the study. You may choose not to be in this study if your insurance does not pay for your routine care (non-research) costs and your doctor will discuss other treatment plans with you.

4. **Side effects and risks that you can expect if you take part in this study:**

Blood draw: You are being asked to have your blood drawn. This is a common medical procedure, but has some associated risks. Pain, redness, soreness, bruising, or infection may occur at the needle stick site. Rarely, some patients faint.

Medications: You may be prescribed one or more of the following FDA-approved tobacco cessation medications. Some of the common side effects of each medication are described below. However, a large study of over 8,000 patients recently showed no difference in neuropsychiatric symptoms (including suicidal thought and suicidal behavior) between patients on varenicline, bupropion, or nicotine replacement therapy (EAGLES; ClinicalTrials.gov Identifier: NCT01456936).

- **Nicotine Replacement Therapy**
  - Nicotine replacement therapy is generally regarded as safe. It is sold over the counter. Possible side effects include high blood pressure, skin irritation or itching (patch), signs of

an allergic reaction, and nausea. Severe and/or life threatening side effects include allergic reactions, such as swelling of your throat and tongue, chest pain, a fast and abnormal heartbeat and inability to think clearly or logically.

- **Varenicline** (also called Chantix)
  - Common side effects of varenicline include nausea, sleep disturbance and vivid dreams, gastrointestinal symptoms, and vomiting. Serious and life-threatening side effects include allergic reactions, such as swelling of your throat and tongue and chest pain. Very rarely, patients, particularly those with unstable psychiatric conditions, may experience serious or life-threatening symptoms such as abnormal thoughts and behaviors, agitation, depressed mood, and thoughts of hurting yourself or others during varenicline treatment.
- **Bupropion** (also called Wellbutrin or Zyban)
  - Common side effects of bupropion include high blood pressure, dry mouth, irritability, and difficulty sleeping. Very rarely, patients can have serious or life-threatening side effects such as allergic reactions, including swelling of the throat and tongue, seizures (especially in those with a history of seizures), and liver problems. Other rare but serious or life-threatening side effects include abnormal thoughts and behaviors, agitation, depressed mood, and thoughts of hurting yourself or others during bupropion treatment.

Expired Carbon Monoxide Test: There are no known serious adverse effects from this test. Sometimes people feel mildly short of breath or cough during the test.

Study staff have determined that you are medically cleared to receive at least two of these medications. Please notify your primary physician and the research team if you experience side effects of a medication. Study staff will call you to monitor for side effects. Dr. Quinn Wells, the Primary Investigator, can be reached at 615-936-1819.

Breach of confidentiality: Your medical records will be reviewed and relevant medical information will be collected and stored in a secure electronic database at Vanderbilt University Medical Center. This data will be password protected and only select research team members will have access to the password. However, despite these protections it is possible that this database could be compromised and a breach of confidentiality could occur.

5. Payment in case you are injured because of this research study:

If it is determined by Vanderbilt and the Investigator that an injury occurred as a direct result of the tests or treatments that are done for research, then you and/or your insurance will not have to pay for the cost of immediate medical care provided **at Vanderbilt** to treat the injury.

There are no plans for Vanderbilt to pay for any injury caused by the usual care you would normally receive for treating your illness or the costs of any additional care. There are no plans for Vanderbilt to give you money for the injury.

6. Good effects that might result from this study:

There are benefits to science and humankind that might result from this study. This study might help providers better understand:

- if patients who want to quit smoking are interested in receiving a test that measures how a person's body breaks down nicotine.
- if patients who want to quit smoking would benefit from a test that measures how a person's body breaks down nicotine.
- how this kind of testing can be done in an outpatient clinic.
- There are benefits that you might get from this study. If you want, you will receive medications to help you stop smoking. There are many potential benefits of quitting smoking.

There may be no benefit to participation in this study.

7. Other treatments you could get if you decide not to be in this study:

You may choose not to participate in this study. If you choose not to participate you will have standard medical care as designated by your usual doctors. Choosing not to participate in this study will not affect your medical care.

If you decide not to be in this study, you can still receive standard TTS counseling and receive guideline-based tobacco cessation treatment recommendations.

8. Payments for your time spent taking part in this study or expenses:

You will receive $10 for each completed follow up phone call. You will receive an additional $10 if you complete an additional blood draw (at 1 month) and biochemical validation (at 6 months). This will be sent by mail in the form of a check. The most you may be eligible for assuming all follow up is completed is $60.

9. Reasons why the study doctor may take you out of this study:

Under some situations, such as rare, but serious side effects from stop smoking medications, the study physician may remove you from the study.

10. What will happen if you decide to stop being in this study?

If you decide to stop being a part of the study, you should tell your study doctor in writing (see section 13 for specific details). Deciding to not be part of the study will not change your regular medical care in any way.

11. Who to call for any questions or in case you are injured:

If you should have any questions about this research study or if you feel you have been hurt by being a part of this study, please contact the Principal Investigator, Dr. Quinn Wells, at 615-936-1819. If you cannot reach Dr. Wells by phone, he can be paged at 615-835-8011.

For additional information about giving consent or your rights as a person in this study, to discuss problems, concerns, and questions, or to offer input, please feel free to call the Vanderbilt University Institutional Review Board Office at 615-322-2918 or toll free at 866-224-8273.

12. Confidentiality:

All efforts, within reason, will be made to keep your personal information in your research record confidential. Total confidentiality cannot be guaranteed. To prevent a breach of confidentiality, these measurements and test results will be given a code and only the study staff will know the code. The name that belongs to the code will be kept in a locked file or in a computer with a password. Only Dr. Wells and the research team will have access to your name. Your measurements and clinic data may be used indefinitely, and they may also be shared with other research groups; but, they will be destroyed when no longer needed.

Vanderbilt may share your information, without identifiers, to others or use it for other research projects not listed in this form. Vanderbilt, Dr. Wells and the staff will comply with any and all laws regarding the privacy of such information. There are no plans to pay you for the use or transfer of this de-identified information.

Your samples may be used to make new products, tests or findings. These may have value and may be developed and owned by the study staff, Vanderbilt University, and/or others. If this happens, there are no plans to provide money to you.

Your samples and information about you may be shared with others to use for research. To protect your privacy, we will not release your name.

At any time, you may ask to have your sample destroyed; however we will not be able to destroy research data that has already been gathered using your sample. Also, if your identity was removed from the samples, we will not be able to locate and destroy them.

Vanderbilt may share your information, without identifiers, to others or use it for other research projects not listed in this form. Vanderbilt, Dr. Wells and his staff will comply with any and all laws regarding the privacy of such information. There are no plans to pay you for the use or transfer of this de-identified information.

13. Authorization to Use/Disclose Protected Health Information

All efforts, within reason, will be made to keep your protected health information (PHI) private. PHI is your health information that is, or has been gathered or kept by Vanderbilt as a result of your healthcare. This includes data gathered for research studies that can be traced back to you. Using or sharing ("disclosure") such data must follow federal privacy rules. By signing the consent for this study, you are agreeing ("authorization") to the uses and likely sharing of your PHI. If you decide to be in this research study, you are also agreeing to let the study team use and share your PHI as described below.

As part of the study, Dr. Wells and his study team may share the results of your study and/or non-study linked laboratory tests, blood samples, other study linked information, as well as parts of your medical record, to the groups named below. These groups may include people from the the Vanderbilt University Institutional Review Board, pharmacies from which you will be receiving your medications, and the laboratories doing your blood work. Federal privacy rules may not apply to these groups; they have their own rules and codes to assure that all efforts, within reason, will be made to keep your PHI private.

The sponsor and/or Vanderbilt may give or sell your health data, without identifiers, to others or use it for other research projects not listed in this form. The sponsor, Vanderbilt, Dr. Wells, and his staff will comply with any and all laws regarding the privacy of such information. There are no plans to pay you for the use or transfer of this de-identified information.

The study results will be kept in your research record for at least six years after the study is finished. At that time, the research data that has not been put in your medical record will be kept for an unknown length of time. Any research data that has been put into your medical record will also be kept for an unknown length of time.

Unless told otherwise, your consent to use or share your PHI does not expire. If you change your mind, we ask that you contact Dr. Wells in writing and let him know that you withdraw your consent. His mailing address is 2220 Pierce Ave, Preston Research Building Rm 340, Nashville, TN 37232. At that time, we will stop getting any more data about you. But, the health data we stored before you withdrew your consent may still be used for reporting and research quality.

If you decide not to take part in this research study, it will not affect your treatment, payment or enrollment in any health plans or affect your ability to get benefits. You will get a copy of this form after it is signed.

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Please check Yes or No to the questions below:

My blood sample may be stored/shared for future gene research for other health problems (such as cancer, heart disease, etc).
○ Yes ☐ No

STATEMENT BY PERSON AGREEING TO BE IN THIS STUDY

I have read this consent form and the research study has been explained to me verbally. All my questions have been answered, and I freely and voluntarily choose to take part in this study.

Date	Signature of patient/volunteer

Consent obtained by:

Date	Signature
	Printed Name and Title

Time